



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,463	04/30/2001	Cristi Nesbitt Ullmann	AUS9-2001-0249-US1	3024

7590 04/06/2005

International Business Machines Corporation  
Intellectual Property Law Department  
Internal Zip 4054  
11400 Burnet Road  
Austin, TX 78758

EXAMINER

PESIN, BORIS M

ART UNIT PAPER NUMBER

2174

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/845,463

Applicant(s)

ULLMANN ET AL.

Examiner

Boris Pesin

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

This communication is responsive to Amendment filed 11/12/2004.

Claims 1-27 are pending in this application. Claims 1-27 are independent claims. In the Amendment A, none of the claims were amended. This action is made Final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

Claims 1-3, 9-11, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft Windows Explorer ("MS Explorer," Microsoft Windows Explorer 2000 Screen Dumps, Figures 1 and 2) in view of Aritomi (US006407760B1).

As per independent claim 1, Applicants claim a computer controlled user-interactive display system, a display interface implementation for providing alternate access for physically impaired users to items normally displayed in drop down menus comprising: means for displaying a sequential set of drop down menus, each having a plurality of selectable items; selection means scrolled along each of said menus. It is notoriously well known in the art to display and select items from a drop down menu. For example, MS Explorer teaches a means for displaying a sequential set of drop down menus, each having a plurality of selectable items (figure 2, element 1); selection means scrolled along each of said menus (figure 2, element 1). However, MS Explorer does not disclose a means enabling a user to selectively display as an alternative to

Art Unit: 2174

said set of menus, a hierarchical arrangement of selectable items corresponding to items in said set of menus; said hierarchical arrangement of items having a greater spatiality than the spatiality of items in said drop-down menus.

Aritomi teaches a means enabling a user to selectively display as an alternative to said set of menus, a hierarchical arrangement of selectable items corresponding to items in said set of menus (column 5, lines 15-30, *i.e. – the assigning action opens the alternate view of the menu*); said hierarchical arrangement of items having a greater spatiality than the spatiality of items in said drop-down menus (figure 5, *i.e. – the hierarchical arrangement has a greater spatiality of items*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of MS Explorer with a means to selectively display a hierarchical arrangement of menus as an alternative view, as taught by Aritomi, with the motivation to allow for more efficient navigating of a menu structure (columns 1-2, lines 65-3).

As per claim 2, which is dependent on claim 1, the combination of MS Explorer and Aritomi teach that the menus in said sequential set of drop down menus sequentially vary from each other in scope (Aritomi, column 2, lines 31-38 and figure 2, *varied scope of menu*); and said alternative hierarchical arrangement of selectable items is a tree of said items with sequential levels of varying scope respectively corresponding to the varying scope of said set of menus (Aritomi, column 2, 31-38, *i.e. – blocks*).

As per claim 3, which is dependent on claim 2, the combination of MS Explorer and Aritomi teach that the selectable items in said tree are icons (Aritomi, column 2, 31-38, *i.e.* – *blocks*).

Claims 9-11 are similar in scope to claims 1-3, respectively, and are therefore rejected under similar rationale.

Claims 17-19 are similar in scope to claims 1-3, respectively, and are therefore rejected under similar rationale.

Claims 4-5, 12-13, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft Windows Explorer ("MS Explorer," Microsoft Windows 2000 Explorer Screen Dumps, Figures 1 and 2) in view of Aritomi (US006407760B1) and further in view of Lamping et al. ("Lamping," US005619632A).

As per claim 4, which is dependent on claim 3, the teachings of the combination of MS Explorer and Aritomi in regards to claim 3 have been discussed above. The combination of MS Explorer and Aritomi do not disclose that the icons are varied in size so as to be optimized to diminish the effects of the individual user's impairment.

Lamping teaches that the icons are varied in size so as to be optimized to diminish the effects of the individual user's impairment (figure 19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of MS Explorer and Aritomi to include a means to vary the size of icons in a hierarchy, as taught by Lamping, with the motivation to provide an hierarchical structure that is easier to navigate and highly intuitive (column 4, lines 62-66).

As per claim 5, which is dependent on claim 4, Lamping teaches that the icons in said tree are varied in distance from each other so as to be optimized to diminish the effects of the individual user's impairment (figure 19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of MS Explorer and Aritomi to include a means to vary the distance between icons in a hierarchy, as taught by Lamping, with the motivation to provide an hierarchical structure that is easier to navigate and highly intuitive (column 4, lines 62-66).

Claims 12-13 are similar in scope to claims 4-5, respectively, and are therefore rejected under similar rationale.

Claims 20-21 are similar in scope to claims 4-5, respectively, and are therefore rejected under similar rationale.

Claims 6, 8, 25, 14, 16, 26, 22, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft Windows Explorer ("MS Explorer," Microsoft Windows 2000 Explorer Screen Dumps, Figures 1 and 2) further in view of Aritomi (US006407760B1) further in view of Lamping et al. ("Lamping," US005619632A) and further in view of Karkkainen et al. (US 6600936).

As per claim 6, which is dependent on claim 4, the teachings of the combination of MS Explorer, Aritomi, and Lamping in regards to claim 4 have been discussed above. The combination of MS Explorer, Aritomi, and Lamping do not disclose a means for

Art Unit: 2174

tracking use characteristics of an individual user; and means responsive to said tracking means for dynamically varying said sizes of said icons.

Karkkainen teaches a means for tracking use characteristics of an individual user (i.e. "This chngement of the icon position by one in the counterclockwise direction is achieved by turning the jog dial 6 of the portable telephone 1 shown in FIG. 1 downwardly in the counterclockwise direction. Thus, the moving direction of the jog dial 6 results in a movement of the circularly arranged icons on the display 2 in the same direction." Column 6, Line 12); and means responsive to said tracking means for dynamically varying said sizes of said icons (i.e. "The icon on position A is enlarged compared to the other displayed icons. This means, that the icon on position A is selected and highlighted so that the respective menu item can be entered by pressing the enter key 5." Column 5, Line 38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of MS Explorer, Aritomi, and Lamping to include a means to track user activity and vary the size of icons based on the user's activity, as taught by Karkkainen, with the motivation to provide the user with a clear and concise method of showing which icons can be selected (column 2, lines 22-27).

As per claim 8, which is dependent on claim 6, Karkkainen teaches that the means for tracking use characteristics of an individual user includes: means for counting the number of times that a plurality of icons are selected; and means responsive to said counting means for varying the sizes of said icons relative to the selection counts of said icons (column 6, lines 12-28, *by moving the jog dial, the icons rotate and when the*

*count of each particular icon is increased (meaning the rotation of the wheel causes a particular icon to display at position A), the icons size is increased ).*

Claims 14 and 16 are similar in scope to claims 6 and 8 respectively, and are therefore rejected under similar rationale.

Claims 22 and 24 are similar in scope to claims 6 and 8 respectively, and are therefore rejected under similar rationale.

Claims 25, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft Windows Explorer ("MS Explorer," Microsoft Windows 2000 Explorer Screen Dumps, Figures 1 and 2) further in view of Aritomi (US006407760B1) further in view of Lamping et al. ("Lamping," US005619632A) further in view of Karkkainen et al. (US 6600936) and further in view of Hochmuth et al. (US 6377286).

As per claim 25, which is dependent on claim 6, the teachings of the combination of MS Explorer, Aritomi, Lamping, and Karkkainen in regards to claim 6 have been discussed above. The combination of MS Explorer, Aritomi, Lamping, and Karkkainen do not disclose a means for counting the number of times that a plurality of icons are selected; and means responsive to said counting means for varying the locations of said icons in said hierarchical tree relative to the selection counts of said icons.

The combination of MS Explorer, Aritomi, Lamping, and Karkkainen teach displaying icons in a tree structure. Hochmuth teaches a means for counting the number of times that a plurality of icons are selected; and means responsive to said counting means for varying the locations of said icons in said hierarchical tree (i.e.



Art Unit: 2174

desktop) relative to the selection counts of said icons (i.e. "When the number of accesses exceeds a specified threshold number of times in less than a specified period of time, and that file is not already represented on the computer desktop, an icon representing that file may be placed on the computer desktop." Abstract, Line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify MS Explorer, Aritomi, Lamping, and Karkkainen with the teachings of Hochmuth and include a method to add icons to a hierarchical tree (i.e. desktop) with the motivation to provide for easier access to icons that are accessed frequently.

Claims 26 and 27 are similar in scope to claim 25; therefore it is rejected under similar rationale.

Claims 7, 15, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft Windows Explorer ("MS Explorer," Microsoft Windows 2000 Explorer Screen Dumps, Figures 1 and 2) further in view of Aritomi (US006407760B1) further in view of Lamping et al. ("Lamping," US005619632A) and further in view of Hochmuth et al. (US 6377286)

As per claim 7, which is dependent on claim 4, the teachings of the combination of MS Explorer, Aritomi, and Lamping in regards to claim 4 have been discussed above. The combination of MS Explorer, Aritomi, and Lamping do not disclose a means for tracking use characteristics of an individual user; and means responsive to said tracking means for eliminating rarely used icons from said tree.

The combination of MS Explorer, Aritomi, and Lamping teach displaying icons in a tree structure. Hochmuth teaches a means for tracking use characteristics of an individual user (Abstract, Line 2); and means responsive to said tracking means for eliminating rarely used icons (Abstract, Lines 8-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of MS Explorer, Aritomi, and Lamping to include a means to eliminate rarely used icons, as taught by Hochmuth, with the motivation to provide more screen space by getting rid of rarely used icons.

Claims 15 and 23 are similar in scope to claim 7, and are therefore rejected under similar rationale.

### ***Response to Arguments***

Applicant's arguments filed 11/12/2004 with regards to claims 1-27 have been fully considered but they are not persuasive.

The applicant argues:

- a. There is nothing in the Aritomi reference suggestive of greater spatiality between its items in the hierarchical screen.
- b. It is not seen where in either the Aritomi or Lamping references there is any suggestion that the references be combined to disclose the present invention.
- c. Direct user input is not tracking of use characteristics of an individual.

In response to argument (a), the Examiner disagrees that Aritomi does not teach greater spatiality. Figure 5 shows that the hierarchical arrangement has a greater

spatiality of items. Furthermore, Figures 5 and 6 also show greater spatiality between items. The menu items are further apart therefore there is greater spatiality.

In regards to argument (b), that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Lamping provides a clear motivation to combine in saying that the hierarchical structure would be easier to navigate and highly intuitive (column 4, lines 62-66).

In regards to argument (c), Karkkainen teaches monitoring what the user is doing because the display changes accordingly with the user input. Furthermore based on the input the icons are enlarged. Therefore, by monitoring the user's input, Karkkainen does in fact teach tracking the use characteristics of a particular user.

### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Pesin whose telephone number is (571) 272-4070. The examiner can normally be reached on Monday-Friday except every other Friday.

Art Unit: 2174

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BP

*Kristine Kincaid*  
JAN 11 2010  
SUPERVISOR OF PATENT EXAMINERS  
TECHNOLOGY CENTER 2100